UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,027	09/26/2003	Yann Le Gallo	60130-1894;02MRA0144	8046

26096 7590 09/07/2006

CARLSON, GASKEY & OLDS, P.C.
400 WEST MAPLE ROAD
SUITE 350
BIRMINGHAM, MI 48009

EXAMINER	
COLON SANTANA, EDUARDO	

ART UNIT	PAPER NUMBER
2837	

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/673,027
Filing Date: September 26, 2003
Appellant(s): LE GALLO, YANN

Le Gallo
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed August 14, 2006 appealing from the Office action mailed March 14, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

WO 01/36772	O'Connor et al.	5-2001
US 6,442,465	Breed et al.	8-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

A. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

B. Claims 1-4, 6-15, and 17-26 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Connor et al. in publication WO 01/36772 A1.

Claims 1-4, 14, 15, 18-20 and 24-26: O'Connor et al. discloses an integrated obstacle detection system as claimed (see all figures and respective portions of the specifications). O'Connor et al. further states the use of direct (non-contact) detectors and indirect (contact) detectors to directly and indirectly detect an obstruction (see all figures and pages 21-29). Moreover, O'Connor et al. discloses that the direct (non-contact) detector may be of various type of sensors (page 10, line 24-27), however for this embodiment he uses a light sensor, which detects a light distribution affected by any obstruction (see figure 2A-2C). Additionally, O'Connor et al. describes the use of indirect (contact) detectors and mentions various manners in which an obstruction may be detected indirectly and provide position information as operating parameters to dynamically adjust the direct detector (see pages 21, 22, 24 and 26). In one embodiment,

O'Connor et al. states that the output of the electric motor (Torque)[1] can also be used to indirectly detect an obstruction (see page 25, lines 3-17). Finally, O'Connor et al. depicts in figure 9 a controller (i.e. processor or analyzing circuit) (202), which analysis (compares) both detecting system (direct and indirect) to determined if an obstruction is present, and provides a signal to stop or reverse the openable member's motion (see page 28, lines 26-32).

Claims 7-9 and 21-23: The method steps are inherent in the product structure discussed above regarding claims 1-4, 6 and 18-20. Further discussion was omitted.

Claims 6, 11 and 17: O'Connor teaches that the non-contact (direct) detector detects obstructions according to the position information provided by the contact (indirect) detector (see page 24, lines 11-23).

Claim 10: O'Connor et al. disclose a memory (106 or 204), which is used to store values and update the reference distribution (see figure 7 and 9).

Claims 12 and 13: O'Connor et al. addresses all the limitations of claims 7-9, in addition to disclosing that a predetermined threshold has been stored in memory to adjust the difference between the energy levels when an obstacle is detected. Furthermore, O'Connor et al. states that the system has the capacity to dynamically (variable) adjust variations in the reflected radiation (see page 26, lines 6-30).

---

[1] Torque = The product of a force acting at a distance.

Claim Rejections - 35 USC § 103

C. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

D. Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Connor et al in view of Breed et al. U.S. Patent No. 6,442,465.

Claims 5 and 16: O'Connor et al. addresses all the limitation of claims 1 and 14 and mentions the use of light sensors. However, he does not explicitly teach or describes that the light sensor is a charge coupled device sensor (CCD). On the other hand, Breed et al. discloses a vehicular component control system based on pattern recognition using optical sensors and optical images of a person, wherein a charge coupled device sensor (CCD) is used (see Col. 17, lines 11-24). Since O'Connor et al. and Breed et al. are in the same field of endeavor of detecting an object, the purpose disclosed by Breed et al. would have been recognized in the pertinent art of O'Connor. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a charge coupled device (CCD) sensor as used by Breed et al. within the teaching of the light sensors in O'Connor et al. for the purpose/advantages that by using a charge coupled device (CCD) sensor, it improves the measurement in the x and y dimensions, thereby acquiring a wider range to detect an object. Additionally, CCDs commonly respond to about 70% of the

incident light and are sensitive to infrared light, which allows low light intensities, even for ultraviolet and visible wavelengths to be detected.

(10) Response to Argument

In regards to Applicant's arguments that that there is no disclosure in O'Connor (WO 01/36772) for an obstruction detection system that includes an indirect detector that outputs position information as operating parameters to the direct detector, see page 24, lines 5-23. O'Connor clearly recites in lines 15-19: "*Thus, over this portion of the aperture, the controller 102 may rely solely on the output from the detector portion of the non-contact* (direct) *system, such as that shown in Figs. 1-6B. An indication of closure position may be provided as an input from the contact-based* (indirect) *system 100.*" In addition, O'Connor describes what type of controller should be used in a hybrid system that includes a direct (non-contact) detector and a indirect (contact) detector, see page 23, lines 22 to page 24, lines 10 and figure 9, which clearly depicts one in-direct obstacle detectors and one direct obstacle detector joined by a controller 202, which receives and transmits position information as operating parameters to dynamically adapt (*adjust*) each detector output signal (see page 26, lines 6-30).

Additionally Applicant contested that the claim invention is directed to use operable member position information to "define" not "use" operating parameters of the direct detector.

The examiner contest this point, as the word "define" is vague and redundant. One ordinary skill in the art would recognized that to

use an operating parameter it has to be first determined (sensed) in a particular way, to further carry on a task.

In regards to applicant's arguments that the adjustment in O'Connor obstruction detection system is not made according to a position information of the closure is not persuasive at all. See page 22, line 11 to page 23, line 10; and in particular page 24, lines 17-19 which clearly states: "*An indication of closure position may be provided as an input from the contact-based system 100*".

In regards to applicant's arguments and comparison regarding the sensitivity of O'Connor's non-contact detector to Applicant's direct detector is not persuasive. It is noted that the features upon which applicant relies (i.e., sensitivity) is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In regards to Applicant's arguments in the 103 rejection that a charge coupled device (CCD) sensor is not obvious, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, It would have been obvious to one of ordinary skill in the art at the time of

the invention to use a charge coupled device (CCD) sensor as used by Breed et al. within the teaching of the light sensors in O'Connor et al. for the purpose/advantages that by using a charge coupled device (CCD) sensor, it improves the measurement in the x and y dimensions, thereby acquiring a wider range to detect an object. Additionally, CCDs commonly respond to about 70% of the incident light and are sensitive to infrared light, which allows low light intensities, even for ultraviolet and visible wavelengths to be detected.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Eduardo Colon
Assistant Examiner
Art Unit 2837

ECS
August 30, 2006

Conferees:

Lincoln Donovan, SPE
Ricky L. Mark, SPE
Eduardo Colon, AE

LINCOLN DONOVAN
SUPERVISORY PATENT EXAMINER

Carlson, Gaskby & Olds, P.C.
400 West Maple Road, Suite 350
Birmingham, Michigan 48009